

even when shot at. When flying they utter a note like "caga, caga," and on the ground run clumsily and slowly, generally forming a line. In Northern Tibet they were frequently heard flying about at night; but no cause could be found to account for this strange behaviour. The Kokonor basin, according to Prjevalsky, forms the northern and probably also the eastern limit of its geographical distribution.

*Male.* Head and back of neck barred alternately with black and white, chin and front yellowish white. Sides of neck and throat orange-yellow. Breast buffy white, barred irregularly with brownish black. Upper part of back and wings buff, lower part of back and rump buffy white; all the feathers minutely mottled with black, hardly perceptible on the wings. Inner webs of scapulars black. Primaries and secondaries brownish black; the fourth to eighth primary brownish white at the tip, mostly on the inner web. Median rectrices like the back, lengthened and filamentous, their apical half black; lateral feathers reddish buff, barred with black, and tipped with white. Under surface white; under tail-coverts reddish buff, barred with black and tipped with white. Legs and feet covered with buffy-white feathers; bill and nails black.

Total length  $15\frac{1}{2}$  inches, wing 10, tail  $7\frac{1}{2}$ , bill along gape  $\frac{1}{2}$ .

#### 4. Descriptions of nineteen new Species of Diurnal Lepidoptera from Central America. By F. DUCANE GODMAN and OSBERT SALVIN.

[Received Jan. 18, 1878.]

Nearly half of the species described in this paper have been sent us during the past year by Mr. H. Rogers from Costa Rica, where he has been collecting on the slopes of the volcano of Irazu. The rest of the species are selected from unnamed specimens in our collection, some of them from Guatemala and some from Mexico. Figures of most of them have been prepared and will be published shortly. Specimens of all the species are in our collection.

#### SATYRIDÆ.

##### 1. EUPTYCHIA PHILODICE.

♂. Exp. 1.9 in. Margin entire, anal angle of secondaries slightly produced; rich brown, central portion of the primaries slightly paler, middle of the secondaries rich reddish fulvous with a very distinct tawny-yellow patch, the inner edge slightly sinuate, the outer extending to two black submarginal spots between the radial nervules; a third nearly obsolete black spot between the median branches: beneath reddish brown, a dark band crossing both wings through the middle of the cell of each, strongly sinuate on the secondaries; beyond the cell of the primaries are two subparallel transverse bands including towards the inner margin a tawny yellow band; a conspicuous tawny yellow band crosses the secondaries

beyond the cell, five argenteous spots surround the margin of the secondaries, whereof those between the lower radial nervule and the third and second median branches are the pupils of black ocelli; that between the first and second median branches is sagittate.

♀. Exp. 1·95. Similar to the male, the colour somewhat paler and the wings more rounded.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

*Obs.* This well-marked species belongs to the *E.-phocion* group of the genus (*cf.* Butler, Journ. L. S. Zool. xiii. p. 123), and comes next *E. argentella* and *E. pyracmon*, having the wings similarly shaped. The peculiar tawny-yellow marks of the secondaries render the species very distinct from its allies. This marking on the upper surface is subject to some variation, being more restricted in some specimens and divided by the reddish brown of the inner portion of these wings running through it longitudinally. Mr. Rogers has sent us a good series of this fine species.

## 2. EUPTYCHIA ROGERSI.

♂. Exp. 1·9. Form as in *E. argentella*: uniform brown above, with a single conspicuous black spot near the margin of the secondaries, between the third median branch and lower radial nervule: beneath paler, a dark red-brown sinuate band crosses both wings through the cell of each; another, nearly straight on the primaries, sinuate on the secondaries, also crosses both wings beyond the cell, outside of which is a pale-brown common band margined exteriorly by a red-brown band hardly traceable on the secondaries; two argenteous spots near the apical angle of the secondaries, and an elongated submarginal one between the first and second median branches; a conspicuous ocellus corresponding to the black spot of the upper surface, the outer ring of which is fawn-yellow, and in the black pupil is a concentric silver spot.

♀. Exp. 1·9. Similar to the male but rather paler and the wings more rounded; the dark bands of the underside appear as indistinct reddish bands on the upper surface.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

This species also belongs to the *E.-phocion* group of the genus. The presence of a single black submarginal spot on the secondaries, as well as other characters, distinguishes it from its allies *E. argentella*, *E. pyracmon*, and *E. philodice*.

## 3. EUPTYCHIA VETONES.

♂. Exp. 1·8 in. Primaries slightly falcate; outer margin of secondaries sinuate, most produced at the end of the second median branch: uniform brown above: beneath brown mottled with paler scales; an obscure narrow band crosses the cell of both wings; a broad submarginal pale reddish-brown band, expanding towards the outer margin, on the primaries; a distinct, yellowish, narrow, nearly straight band traverses the secondaries from inside the apical to inside the anal angle; a distinct ocellus with an argenteous crescent

inside between the second and third median branches ; argenteous spots on either side of this ocellus.

♀. Exp. 1.95 in. Like the male, but the upperside crossed with reddish bands corresponding to the markings of the underside ; the ocellus of the underside shows above as an indistinct black spot.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

*Obs.* A close ally of *E. ithama*, Butler (Lep. Ex. p. 9, t. iv. f. 4), from which it differs in the much clearer definition of the markings of the underside, the extracellular transverse cross band of the secondaries being yellowish and not reddish as in *E. ithama*. The male of *E. ithama* is not known to us ; but, comparing the females of the two species, the red markings of the upper surface of the southern race are much more conspicuous than in the northern. Mr. Butler's figure of *E. ithama* (the type of the species being before us) is much too pale in general tint, and the cross bands far too conspicuously shown.

#### 4. LYMANOPODA EUOPIS.

♂. Exp. 2.2 in. Primaries with apical angle rather pointed, outer margin of secondaries rounded ; rich brownish-black ; black ocelli with white pupils between the radial nervules and the second and third median branches, halfway between the cell and the outer margin ; a transverse row of obsolete black spots beyond the cell of the secondaries : beneath reddish-brown, yellowish beyond the cell ; a bicurved row of five distinct black ocelli with white pupils between the cell and the outer margin of the primaries, on either side of this row a sinuate black band, the distal one reddish towards the apical angle ; at the end of the cell a dusky yellowish spot surrounded by a black line : secondaries beneath with dark red-brown bands from costal margin across the cell, and beyond the cell from the third median branch to the inner margin ; a submarginal band made up of outwardly concave concentric marks ; across the wing beyond the cell runs a band of seven small white-pupillated black ocelli, each on a patch of rich red-brown.

♀. Exp. 2.22 in. Brown ; primaries with six black white-pupillated ocelli arranged in a double curve beyond the cell on a tawny-yellow ground ; secondaries with distal half (except the margin) tawny-yellow, a band of six black spots crosses the wings beyond the cell : beneath tawny-yellow, the base of the primaries rather darker, ocelli and markings of primaries as in the male ; secondaries almost uniform tawny-yellow, the ocelli and markings almost obsolete.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

*Obs.* A very distinct species of this Andean genus, the first as yet found north of the Isthmus of Panama.

#### 5. PEDALIODES TRIARIA.

♂. Exp. 2.45 in. Allied to *P. praxithea* (Hew. Ex. Butt. *Pronophila*, pl. v. f. 28, 29), differing in the more pointed primaries ; the orange band of the same wings is narrower and of nearly equal width ; in the secondaries the orange spot, instead of being restricted

to the apical angle, extends halfway along the outer margin. Beneath the difference between the two species is more obvious; the whole under surface of the secondaries in *P. triaria* is dark brown mottled with black, two broken black bands crossing the wings, one through the cell, the other beyond it; a row of six submarginal ocelli with white pupils, that between the first and second median branch being much the largest and most conspicuous; the mottling of the apical area of the secondaries is upon a yellowish ground-colour; the light ground-colour at this part, and over the distal third of the secondaries in *P. praxithea* is wanting.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

#### 6. PEDALIODES CREMERA.

♀. Exp. 2.9 in. Primaries entire, apical angle somewhat produced, outer margin of secondaries sinuated; dark brown; primaries crossed by a broad submarginal band of obscure tawny, the inner edge of which is concave, and the outer serrate running parallel to the outer margin: beneath mottled with blackish brown, in the tawny band of the primaries, between the first and second median branches is a white-pupillated ocellus; an irregular dark line follows the outer margin of the secondaries halfway between the outer margin and the cell; between the first and second median branches near the margin is a large black ocellus with a white pupil, and two smaller ones near the anal angle.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

#### 7. OXEOSCHISTUS ROGERSI, sp. n.

♀. Exp. 3 in. Allied to *O. phaselis* (Hew.), differing above in having a conspicuous row of tawny oval spots, separated by the nervules running parallel to the outer margin, the three spots separated by the first and second median branches, and that between the middle and upper radials bearing large dark brown spots of the same brown colour as the rest of the wings: beneath, the markings resemble those of *O. phaselis*, except that the marginal region of the primaries is strongly marked with fulvous corresponding with the markings of the upper surface.

*Hab.* Costa Rica, Irazu (*H. Rogers*, type *mus. nostr.*); Chiriqui (*Ribbe*: *mus.* O. Staudinger).

Dr. Staudinger's Chiriqui specimen exactly resembles ours, except that it is rather paler, being not so fresh.

*O. phaselis* has been placed in the genus *Pronophila* by Mr. Hewitson, and in that of *Dædalma* by Mr. Butler (*Cat. Satyr.* p. 184); but, so far as we can see, its proper place is in the genus *Oxeoschistus*, with the members of which it agrees in neuration, and with some of them in style of coloration.

#### NYMPHALIDÆ.

#### 8. PHYCIODES THEBAIS, sp. n.

Exp. 1.5 in. Allied to *P. orseis*, Edwards, ex California, as to the position of the marks of the upper surface, and as to the coloration of

the under surface of the wings: the markings above are pale yellowish instead of deep fulvous, and the submarginal row of ocelli of the secondaries is almost obsolete; the outer margin of the primaries is more sinuate, being slightly concave about the middle, instead of following a simple convex outline: beneath the dark marks near the outer margin and inner angle of the primaries are more clearly defined.

*Hab.* Mexico, Mountains of Oaxaca (*Fenocchio*, type); Guatemala, Highlands near Dueñas, 4800 ft. (*S.* & *G.*).

*Mus. nostr.* Two examples.

#### 9. PHYCIODES BOUCARDI, sp. n.

Exp. 1·3 in. Form of *P. elada* (Hew.), which it somewhat resembles on the upperside, but from which it differs completely on the underside. The tawny spots are all of nearly equal size, that halfway between the end of the cell and the apex of the primaries (divided into three by the nervules) being slightly the largest. The spots on the secondaries beyond the cell are arranged in three concentric lines, the submarginal one consisting of a series of lunules, the middle one consisting towards the anal angle of obsolete ocelli. Beneath nearly uniform tawny, the secondaries being paler; the basal two thirds of both wings crossed irregularly with fine dark lines; the outer third of the primaries submarginally dark, enclosing round tawny spots; secondaries with a dark patch about the middle of the outer margin, and a row of black spots corresponding to the obsolete ocelli of the upperside.

*Hab.* Mexico, Putla (*Rébouch*).

*Mus. nostr.* One example.

We are indebted to Mr. Boucard for the possession of this species.

#### 10. PHYCIODES SUBOTA, sp. n.

♂. Exp. 1·7 in. Allied to *P. ardys* (Hew.), from which it differs on the upperside in the submarginal lunate lines of the secondaries being obsolete, and in having the bases of both wings without the faint marking seen in *P. ardys*. Beneath, the deep-tawny spots and pale fulvous wash are replaced by deep brown and pinkish grey; a well-defined band of pale spots crosses the middle of the secondaries.

♀. Exp. 1·95 in. Similar to the ♂, but larger, and all the marks, especially the band crossing the secondaries, better-defined.

*Hab.* Guatemala, valley of the Rio Polochic (*S.* & *G.*); Costa Rica, Irazu (*Rogers*).

*Mus. nostr.*

The Costa-Rica specimens are slightly aberrant, the base of the wings beneath being darker and the cross band of the secondaries narrower.

#### 11. PHYCIODES DRYMÆA, sp. n.

♂. 1·4 in. Allied to *P. ardys*, Hew., and the last-described

species; from both it differs in the absence of the band crossing the secondaries, its place being occupied by a row of very small spots: beneath, the markings of the secondaries are very indistinct, and consist chiefly of dark marks near the region of the anal angle, and one projected from beyond the middle of the costa halfway across the wing.

*Hab.* Guatemala; hacienda "las Nubes;" valleys of the rivers Chisoy and Poloehic.

*Mus. nostr.*

## 12. PHYCIODES CYNEAS, sp. n.

♂. Exp. 1.45 in. Allied to *P. leanira*, Feld., ex California, from which it differs in having a well-defined submarginal row of red spots on the secondaries above, and also some red spots near the middle of the outer margin of the primaries, but none on the inner part of the wing: beneath, the dark markings of *P. leanira* across the cell and towards the costa of the secondaries are wanting; but, as in that species, the nervules are black.

*Hab.* Mexico, mountains of Oaxaca (*Fenocchio*).

*Mus. nostr.*

## 13. PHYCIODES NEBULOSA.

♂. Exp. 1.5 in. Belongs to the *P.-ardys* (Hew.) group. Markings of wings above deep tawny red; wings more elongated than in *P. ardys* and its allies; base of the secondaries with obsolete tawny marks; secondaries beneath pale greyish, region of the outer margin dark, and a dark subtriangular mark from the costa halfway across the wing.

*Hab.* Guatemala, hacienda "las Nubes" (O. S.).

*Mus. nostr.*

Taken in the beginning of February 1874.

## 14. ERESIA MECHANITIS, sp. n.

♀. Exp. 2.2 in. Like *E. eunice* (Hübner), but differing in having the apical half of the primaries crossed with two well-defined yellowish bands: the inner one is but slightly indented and not distinctly broken as in *E. eunice*; the outer one crosses the apex as a distinct band instead of being an obsolete spot.

*Hab.* Nicaragua (*Janson*).

Probably a northern race of *E. eunice*, but differing slightly from all the forms of that species found in the Amazonian region.

## 15. ERESIA DRYPETIS, sp. n.

♂. Exp. 2.2 in. Differs from *E. eunice* and the last-described species chiefly in the narrowness and direction of the transverse band of the secondaries. The dark mark over the median nervure of the primaries is obsolete; the dark band crossing the primaries is continuous.

*Hab.* Panama (*McLeannan*, type); Guatemala, interior (*S. & G.*).

16. *TIMETES PHIALE*, sp. n.

♂. Exp. 2.5 in. Closely allied to *T. corita*, Bates, from which species the male hardly differs: the region of the costa of the secondaries is suffused with the reddish tawny colour of the apical angle; and beneath the general tint is paler.

♀. Exp. 2.5 in. Differs from ♀ *T. corita* in general tint of the wings being brick-red instead of rich brown, the transverse markings of the wings being much more clearly defined; beneath the markings are all very indistinct, both wings being crossed by a common rufous band.

*Hab.* Guatemala, Volcano of Atitlan (*Salvin*).

*Mus. nostr.* Three examples.

Taken at the end of January 1874, in forest, at an elevation of about 4000 feet.

17. *ADELPHA FALCATA*, sp. n.

♂. Exp. 2.2 in. Primaries elongated, outer margins concave, dark brown; both wings with a common white band extending from the space above the second median branch of the primaries to the anal angle of the secondaries, where the usual tawny spot is absent. A tawny spot extends curving outwards from about the middle of the distal half of the subcostal nervure of the primaries towards the margin; the outer margin of this spot is deeply sinuated, apex narrowly white. Beneath rich tawny; the white band as above, but with a dark margin on either side; the tawny spot is paler and rounded; a submarginal row of glaucous spots, obsolete about the middle of the margin of the primaries; two glaucous spots in the cell and one beyond it; two transverse series across the base of the secondaries, all with dark margins.

♀. Similar to the ♂, but larger (exp. 2.55 in.); the primaries being less falcate.

*Hab.* Guatemala, valley of the Rio Polochic.

*Mus. nostr.*

*Obs.* In pattern of coloration this species somewhat resembles *A. iphiela* (L.); but it may be at once distinguished by the strongly falcate wings, the absence of the tawny spot at the anal angle of the secondaries, and the coloration of the under surface.

18. *ADELPHA DIOCLES*, p. n.

♂. Exp. 2.1 in. Dark brown, with three darker submarginal bands to both wings; a common white band crosses both wings from above the second branch of the median nervure of the primaries to the anal angle, near which is a tawny spot; a tawny spot runs from the costa of the primaries, parallel to the margin, nearly as far as the first median branch, and is separated from the white band by an oblique dark line; two dark-margined tawny spots cross the cell, one at the end and one in the middle. Beneath the bands are as on the upperside; the margins of both wings are bluish white, with a marginal and central tawny line; this marginal band is separated from

the central bands by a tawny dark-edged band; the cell of the primaries is whitish at the base and crossed by a dark-margined spot of the same colour near the end; beyond it is a similar mark running into the central white band.

*Hab.* Volcano of Chiriqui (*Arcé*).

*Mus. nostr.*

A beautiful and distinct species, coming perhaps nearest *A. syma* (Hübner) of S. Brazil.

#### PAPILIONIDÆ.

##### 19. PAPILIO SYEDRA, sp. n.

♂. Exp. 5 in. Allied to *P. abderus*, Hopff., and *P. asclepius*, Hübner., the yellow submarginal lunules of the secondaries being absent as in the former of these two species. From it the present species differs in the row of black lunules which traverse the secondaries beneath, beyond the yellow band, being distinctly margined on their inner convex edges with maroon, the outer concave edges enclosing an area of blue; these marks in *P. abderus* are respectively grey and yellow: the submarginal lunules beneath on the secondaries are deeper maroon than in *P. abderus*.

*Hab.* Volcano of Chiriqui (*Arcé & Ribbe*).

*Mus. nostr.* et O. Staudinger.

We have long possessed a single specimen of this species. Having recently seen others in the collection of Dr. Staudinger, we have been able to test the stability of the characters by which it differs from *P. abderus*.

##### 5. On a small Collection of Birds from the Ellice Islands.

By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c. With a Note on other Birds found there, by the Rev. S. J. WHITMEE.

[Received January 21, 1878.]

The Rev. S. J. Whitmee has been so kind as to submit to me a small parcel of birds obtained for him by a collector in the Ellice Islands. The few skins do not give materials for a large paper; but I trust that the details connected with the synonymy of *Anous cæruleus* will be found interesting.

1. ARDEA SACRA, Gm.; Finsch & Hartl. Faun. Central-Polyn. p. 201 (1867).

Two specimens in changing plumage, one with the white dress nearly complete, the other still with plentiful remains of ashy-brown feathers.

##### 2. ANOUS CÆRULEUS.

I must acknowledge the assistance which I have received from Mr.